

84089

9.3120 (1137,1138,1331)

S/181/60/002/009/032/036
B004/B056

AUTHORS: Zingerman, Ya. P., Ishchuk, V. A., Morozovskiy, V. A.

TITLE: The Electronic and Adsorption Properties of Films of Barium Atoms on Tungsten

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 9, pp. 2276-2286

TEXT: In an earlier paper (Ref. 1), the authors described a new method of studying the kinetics of adsorption processes. In the present work, this method was used for the adsorption of barium on tungsten surfaces. The experimental tube and the measuring methods are described in Ref. 1. A target made from a polished, 0.5 mm thick sheet of high-purity tungsten, whose surface was purified by electron bombardment at $T > 2600^{\circ}\text{K}$, was used. The target surface in this case had a microcrystalline structure (size of the microcrystals $50 - 100\mu$). In individual cases, 20μ thick tungsten sheets were used, and the microcrystals attained a size of $0.2 - 0.7$ mm after the electron bombardment. "BATI" ("BATI") getter pills with 99% of Ba were used as a barium source. The investigations were carried out at $(1 - 2) \cdot 10^{-9}$ torr. The change in the work function of the tungsten during

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The Electronic and Adsorption Properties of
Films of Barium Atoms on Tungsten

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covering with barium atoms was measured by means of an electron beam. The dependence of $\Delta\psi$ on the surface concentration n of Ba was determined by two methods: a) By measuring the desorption heat Q as a function of n ; b) by measuring $\Delta\psi$ as a function of the adsorption time t in a constant atom stream N_i . The experimental data are given in Fig. 1: Ion current recorded by an ЭПП-09 (EPP-09) potentiometer as a function of t and of the temperature of the W target ($300 - 1650^{\circ}\text{K}$); Fig. 2: surface concentration n of the barium atoms as a function of time and temperature; Fig. 3: desorption heat Q and modification of the work function $\Delta\psi$ as a function of n ; Fig. 4: $\Delta\psi$ as a function of t and temperature; Fig. 5: $\Delta\psi$ as a function of t and temperature in a W target purified by heating; Fig. 6: dto. in a target purified by electron bombardment; Fig. 7: Q as a function of the coating degree \mathcal{V} . The dependence of $\Delta\psi$ on temperature and on the manner of treating the target (occurrence of a minimum for $\Delta\psi(n)$ at low temperatures), which was found in this paper, is explained by the change in the impurity content of the adsorbed barium film. The impurities are probably atoms of the residual gas whose stream is of the same order of magnitude also at 10^{-9} torr as the stream of barium atoms. This could be

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experimentally proven by the adsorption of Ba on a W target covered with an adsorbed residual gas film (Fig. 8). Electron bombardment leads to a lower durability of the residual gas on the target (Fig. 9). The change in $\Delta\psi$ is related to the dipole effect p of the adsorbed atom. The following relation is obtained from equation $\Delta\psi = 4\pi pn^2$: $n^{3/2} = (p_0/\varrho\alpha)(1/p) - 1/\varrho\alpha$ (4), where α is the lattice constant. This interrelation was confirmed by experimental verification (Fig. 10). The authors drew the following conclusions: The adsorption of the barium atoms on the tungsten surface is not activated. The condensation coefficient equals unity, and with a covering degree of from $\sqrt{n} \approx 1$ to $\sqrt{n} \approx 1.5$ it does not depend on the latter nor on temperature. In the adsorption of barium atoms on W bombarded with electrons, the value of $\Delta\psi$ monotonically approaches a limit which is near the work function for compact Ba. This limit is attained in the case of monatomic covering $n \approx (5 - 6) \cdot 10^{14}$ atom/cm². The authors thank I. M. Dykman, Candidate of Physical and Mathematical Sciences, for his assistance and discussions. There are 10 figures and 11 references: 6 Soviet, 2 US, 3 British, and 1 German. X

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The Electronic and Adsorption Properties of
Films of Barium Atoms on Tungsten

84089
S/181/60/002/009/032/036
B004/B056

ASSOCIATION: Institut fiziki AN USSR, Kiyev (Institute of Physics of
the AS UkrSSR, Kiyev)

SUBMITTED: February 22, 1960

X

Card 4/4

22039

S/181/61/003/004/005/030
B102/B214*26.2531
26.2312 24.7400 (1160, 1143)*AUTHORS: Zingerman, Ya. P., Ishchuk, V. A., and Morozovskiy, V. A.

TITLE: Adsorption of atoms of the alkaline-earth group on polycrystalline tungsten

PERIODICAL: Fizika tverdogo tela, v. 3, no. 4, 1961, 1044-1053

TEXT: With regard to the adsorption of alkaline earth by tungsten, the literature is still very incomplete and the published data diverge. Therefore, the authors planned an exhaustive investigation of the thermionic and adsorption properties of atomic films of all alkaline earths on tungsten. The system W - Ba was already studied by them in a previous article (Ref. 1: FTT, II, 9, 2276, 1960) where, as here, the method used was one newly developed by the authors. The method is called "ionization method for the investigation of adsorption kinetics on surfaces of solid bodies" and is described in Ref. 6 (FTT, II, 12, 1960). The results of investigations relative to the adsorption of the residual alkaline earth on tungsten are given in the present paper. The ionization method was used to study the adsorption of Mg and Be; for Sr

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S/181/61/003/004/005/030
B102/B214

Adsorption of atoms ...

and Ca the simpler method of contact potential difference was used, which is based on the measurement of the change in the work function of tungsten during isobaric adsorption. This latter method was proposed and described in Ref. 4 (Yu. S. Vedula, V. M. Gavril'yuk, UFZh, 3, 632, 1958). The metals Sr, Ca, and Mg were obtained from SrO, CaO, and MgO, respectively, by thermal reduction with tantalum. Be was obtained from repurified chemically pure Be metal by evaporation. The tungsten target was an optically polished tungsten plate of high purity, purified in vacuo under electron bombardment at $T > 2600^{\circ}\text{K}$. It had a polycrystalline structure in the final state with a crystallite size of 50-100 μ . The results of the investigations are illustrated in the form of diagrams, some of the typical ones being reproduced here. Numerical data are collected in a table. For example, Figs. 3 and 4 show the work function $\Delta\varphi$ as function of the surface concentration n of the adsorbed atoms. The theoretical relations $\Delta\varphi = 4\pi p_0 n / (1 + 9an^{3/2})$; $n^{3/2} = 4\pi p_0 n / 9a\Delta\varphi - 1/9a$, as well as the values $\Delta\varphi_0$ and n_0 in the maximum of the curve $\Delta\varphi(n)$: $\Delta\varphi_0 = 4\pi p_0 n_0 / 3$ and $n_0 = (9a/2)^{-2/3}$ are correctly reproduced by the results of measurement;

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Adsorption of atoms ...

p_0 denotes the dipole moment for $n = 0$ and α the polarizability of the adsorbed atoms. The experimental results lead to the following conclusions: 1) The condensation coefficient of Ba, Mg, and Be on W in a large range of T and n equals one. If the flux of the atoms being adsorbed is constant, the rate of adsorption is constant, which indicates the mobility of the adsorbed atoms in the surface layer. 2) On adsorption of Be on W the adsorbed atom shows no marked dipole moment. The work function of a thin atomic layer of Be on W equals 4.53 ev. 3) The adsorption of Ba, Sr, Ca, and Mg on polycrystalline W which has been heated to remove gas impurities and subjected to electron bombardment, shows a monotonic decrease of $\Delta\varphi$ of W during the formation of a monatomic coating. Adsorption of the same atoms on a cold ($T \approx 300^{\circ}\text{K}$) W surface leads to the usual maximum of the $\Delta\varphi(n)$ curve, which is a consequence of interaction of the adsorbed atoms with the residual gas on the W surface. 4) The change of $\Delta\varphi$ on adsorption of Ba, Sr, Ca, and Mg on W can be described theoretically if the dipole moment of the adsorbed atom at $n = 0$, its polarizability, and the surface concentration n_M of the adsorbed atoms in a monatomic layer are taken into consideration. 5) Desorption of

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Adsorption of atoms ...

alkaline earth from W is characterized by a linear decrease of the desorption heat Q with increasing n. This must be explained as due to the adsorption inhomogeneity of W, and not to a change in the interaction energy of the adsorbed atoms. The electrostatic binding between alkaline earth and W appears to be unimportant for adsorption. The authors thank Yu. G. Ptushinskiy, Candidate of Physical and Mathematical Sciences, and Engineer B. A. Chuykov for the mass-spectrometric analysis. There are 7 figures, 1 table, and 11 references: 7 Soviet-bloc and 4 non-Soviet-bloc.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Institute of Physics AS UkrSSR, Kiyev)

SUBMITTED: May 24, 1960

Card 4/10

DYKMAN, I.M.; ZINGERMAN, Ya.P.; ISHCHUK, V.A.; MOROZOVSKIY, V.A.

Nonequilibrium electron emission from a p - n-junction in
silicon. Fiz. tver. tela 4 no.8:2015-2025 Ag '62. (MIRA 15:11)

1. Institut fiziki AN UkrSSR, Kiyev.
(Electrons--Emission) (Junction transistors)

39979

S/181/62/004/008/024/041
B102/B104

26.2531

AUTHORS: Zingerman, Ya. P., and Ishchuk, V. A.

TITLE: Adsorption of barium atoms on tungsten

PERIODICAL: Fizika tverdogo tela, v. 4, no. 8, 1962, 2212-2213

TEXT: The authors continue to study the dependence of the tungsten work function ψ on the degree θ of coating. For W-Ba, W-Ca, W-Sr, W-Mg the $\psi(\theta)$ curves had been found to depend greatly on the W surface temperature during the coating process (cf. FTT, 2, 2276, 1960; 3, 1044, 1961), and here the system W-Ba was again investigated under somewhat modified conditions (better vacuum 10^{-10} mm Hg, controlled gas source; use of highly purified polycrystalline $20-\mu$ W film - short-period annealing at 3000, long-period at 2500°K). Results: The mean work function of tungsten is a monotonic function of the quantity of adsorbed Ba atoms. The presence of gas impurities in the coating leads to the occurrence of a minimum in $\psi(\theta)$. Thus it is confirmed that the presence of electro-negative gas molecules in the adsorbed layer of alkaline-earth metals causes a

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S/181/62/004/008/024/041

Adsorption of barium atoms on tungsten B102/B104

reduction of the tungsten work function. There is 1 figure.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Institute of Physics of the
AS UkrSSR Kiyev)

SUBMITTED: March 28, 1962

Card 2/2

ACCESSION NR: AP4028148

S/0181/64/006/004/1172/1181

AUTHORS: Zingerman, Ya. P.; Ishchuk, V. A.

TITLE: The role of the surface layer in the interaction of molecular oxygen with a tungsten surface

SOURCE: Fizika tverdogo tela, v. 6, no. 4, 1964, 1172-1181

TOPIC TAGS: adsorption, oxygen, tungsten, molecular beam, chemisorption, work function, surface layer

ABSTRACT: The authors measured the work function as a means of studying the interaction between a molecular beam of oxygen and a tungsten surface especially freed from impurities by heating at 3000K in a vacuum of about 10^{-9} cm Hg. It was found that the curves defining the change in work function with time of adsorption differ in a number of features: in the temperature interval 300-850K they differ at each end of the interval both in initial angular coefficient of the function and in limiting value, but the change in work function is steady; between the extremes, the change in function is not steady but reaches a maximum more rapidly the higher the temperature of the target during adsorption; the initial steepness of the work-function curve remains constant throughout this temperature interval except at the 850K boundary, where it declines sharply and again remains constant in the

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Author's PTT ... 6, 1172, 1964), with addition of a system for alerting the pilot to the impact surface. This system consisted of

"APPROVED FOR RELEASE: 04/03/2001

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NR REF SOV: 003

OTHER: 004

Cord

3/3

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3"

ZINGERMAN, Ya.P.; ISHCHUK, V.A.

Use of the electron-stimulated desorption method in studying
oxygen-tungsten interaction. Fiz. tver. tela 7 no.1:227-237
(MIRA 18:3)
Ja '65.

1. Institut fiziki AN UkrSSR, Kiyev.

L 8590-66 EWT(m)/T/EWP(b)/EWA(c)/EWP(t) IJP(c) JC/JD

ACCESSION NR: AP5019898

UR/0181/65/007/008/2569/2571

AUTHOR: Zingerman, Ya. P.; Ishchuk, V. A.; Krutilina, T. A.

73
74

TITLE: Some features of the interaction between oxygen and the surface of single-crystal tungsten

SOURCE: Fizika tverdogo tela, v. 7, no. 8. 1965, 2569-2571

TOPIC TAGS: oxygen, tungsten, single crystal, surface active agent, metal oxidation, adsorption

ABSTRACT: This is a continuation of earlier work (FTT v. 6, 1172, 1964 and v. 7, 227, 1965) on the interaction between oxygen and polycrystalline tungsten. The purpose of the present investigation, in which single-crystal tungsten was used, was to determine the effect of the surface structure on the interaction. Two indirectly heated discs (5 mm dia. and 0.6 mm thick) with faces parallel to the [100] and [110] planes and cut from the same single crystal were measured simultaneously in the same experimental setup. The alignment of the samples is described. The experimental technique was similar to that used in the earlier investigations. From the difference in the equalization rates of the work functions on the two surfaces it is deduced that the oxygen condensation coefficients are different on the two surfaces. Appreciable differences were also noted in the oxygen adsorption on

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2

L 8590-66

ACCESSION NR: AP5019898

2

the two surfaces. On the closer packed [110] face there was no interaction between the adsorbed oxygen atoms and the tungsten atoms. The decrease in the work function of the [100] surface is also discussed. "The authors thank D. A. Gorodel'skiy for indexing the single-crystal targets by the slow-electron-diffraction method." Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev (Institute of Physics AN UkrSSR)

SUBMITTED: 09Apr65

ENCL: 00

SUB CODE: SS

NR REF Sov: 002

OTHER: 003

jw
Card 2/2

L 25485-66 EHT(m)/T/EWP(t) IJP(c) JD/HW
ACC NR: AF6009684

SOURCE CODE: UR/0161/66/008/003/0912/0919

60

B

AUTHOR: Zingerman, Ya. P.; Ishchuk, V. A.

ORG: Institute of Physics, AN UkrSSR, Kiev (Institut fiziki AN UkrSSR)

TITLE: Adsorption of oxygen on the (110) face of single-crystal tungsten

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 912-919

TOPIC TAGS: tungsten, single crystal, gas adsorption, oxygen, crystal surface, chemisorption

ABSTRACT: This is a continuation of earlier work by the authors (FITT v. 7, 2569, 1965), dealing with the interaction between oxygen and surfaces of different faces of tungsten single crystals. The present investigation was devoted to the (110) face, and the experimental equipment used was the same as in earlier studies. The method consists essentially of adsorbing molecular oxygen from a beam under conditions of very high vacuum ($\sim 10^{-10}$ mm Hg). The single crystal was grown by zone melting. The results show that the interaction with the (110) face consists only of adsorption of oxygen molecules with subsequent dissociation and formation of a final structure of the WO type. It was observed that the (110) face is characterized by the presence of only one type of oxygen chemisorption state with the binding energy between the adsorbed atom and the metal being 4.8 ev, regardless of the degree of coating of the surface θ , with the latter ranging from $\theta \lesssim 0.1$ to $\theta \approx 0.9$. In the region $\theta < 0.5$, the chemisorption is not an activated process, and its probability, equal to 0.1 at

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L 25485-66

ACC NR: AP6009684

300K, decreases monotonically with temperature. At $\theta > 0.5$ the chemisorption becomes activated and its probability decreases exponentially with the temperature ($\sigma = \sigma_0 \exp(-E/kT)$), where the activation energy is $E = 4.8 \times 10^{-2}$ ev). Orig. art. has: 5 figures and 9 formulas.

SUB CODE: 20/ SUBM DATE: 26Jun65/ ORIG REF: 004/ OTH REF: 006

Card 2/2 CC

PANDAKOV, V., aspirant; LIPNITSKIY, V.; ISHCHUK, Ya., inzh.

The ruble of innovators is a ruble of substance. Izobr.
i rats. no.8:3 Ag. '61. (MIRA 14:9)

1. Nachal'nik planovogo otdela Novosibirskogo metallurgicheskogo
zavoda (for Lipnitskiy).
(Novosibirsk—Steelworks—Technological innovations)

L 16011-65 EWT(m)/EPF(c)/T
ACCESSION NR: AP4045005

Pr-4 DJ

S/0065/64/000/009/0049/0052

AUTHOR: Ishchuk, Yu. L.; Sinitsyn, V. V.

TITLE: The influence of the structure of fatty acids upon the properties of calcium-containing lubricants, the solidols

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 9, 1964, 49-52

TOPIC TAGS: solidol, lubricant, saturated fatty acid, unsaturated fatty acid, natural fatty acid, synthetic fatty acid, lubricant chemical stability, lubricant thermal stability, lubricant mechanical property, ratio of unsaturation

ABSTRACT: Most solidols in the USSR are prepared from synthetic fatty acids, mainly of the stearic type, obtained by the oxidation of paraffin. Calcium soaps of saturated acids, however, are not usable for solidols. The present work is aimed at determining the best use of synthetic fatty acids as components of the lubricant by studying the influence of the ratio of saturated and unsaturated acids upon solidol properties. Various ratios of stearic, oleic acid, cottonseed oil

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L 16011-65
ACCESSION NR: AP4045005

and tallow or their mixtures were used. These were heated with dry calcium soaps and the specimens tested after 2-3 days for contents of water, free alkali, drop point temperature, break- and shear resistance, viscosity, etc. The thickening capability of hydrated calcium soaps was found to increase with an increase in the unsaturation of the solidols or their glycerides. Viscosity and strength also increased and colloidal stability improved. However, increase of the relative share of unsaturated acids caused a decrease in mechanical and chemical stability of the solidols. Solidols from unsaturated acids showed a slow, prolonged (5 or more days) thixotropic increase of solidity limits. In several cases a lowering of the limit of shear strength was observed in solidols at high temperatures (70C). To obtain high quality solidols, soaps of a mixture of fatty acids should be used. Unsaturated acids will increase the thickening ability of the soap, while the saturated acids will compensate for the insufficient mechanical, chemical and thermal stability of soaps from unsaturated acids. Orig. art. has: 2 tables and 4 figures.

ASSOCIATION: None

Card 2/3

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3

L 16011-65
ACCESSION NR: AP4045005

SUBMITTED: 00

ENCL: 00

SUB CODE: FP, GC

NO REF SOV: 004

OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3"

SEARCHED SERIALIZED INDEXED

REF ID: A64 NR: AP5007173

S/0286/65/000/003/0042/048

AUTHORS: Ishchuk, Yu. I.; Tsvayn, V. V.; Goshko, N. S.; Stepanyants, S. A.

TITLE: Preparative method for calcium multi-constituent lubricating greases. Class 13, No. 1-1936

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 42

TOPIC TAGS: grease, lubricating grease, lubricant, calcium grease

ABSTRACT: An Author Certificate has been issued for a preparative method for calcium multi-constituent lubricating greases. The method consists in blending mineral oil with a mixture of fatty acids and epoxidized vegetable oil and then adding a stabilizer. The resulting product has high thermal stability and mechanical strength. The greases are stable and serviceable in a wide range of temperatures. The ester bonds formed during the synthesis and the double bonds are suited to thermal and

AMMUNITION: none

Card 1/2

STROM, D.A., kand.tekhn.nauk; ISHCHUK, Yu.L., inzh.; STROM, L.D., inzh.

Production of synthetic fat. Masl.-zhir. prom. 27 no.11:34-37
N '61. (MIRA 15:1)

1. Berdyanskiy neftemaslozavod (for D.A. Strom, Ishchuk).
2. Moskovskiy neftepererabatyvayushchiy zavod (for L.D. Strom).
(Oils and fats)

STEPANYANTS, S.A., inzh.; ISNCHUK, Yu L., inzh.

New consistent lubricant for conveyer bridges; "OM" lubricant VIU
TSMZ-5 No. 01-60. Nauch.zap.Ukrniiproekta no.4:173-174 '61.
(MIRA 15:1)
(Lubrication and lubricants)

ISHCHUK, Yu.L.; SYSUYEV, I.A.; LEONT'YEVA, L.S.

Improvement of the technological process for preparing lead
stearate. Trudy BOMZ no.1:16-19 '63. (MIRA 16:6)

(Lead salts) (Stearic acid)

STEPANYANTS, S.A.; MORDASHOV, V.N.; ISHCHUK, Yu.L.; STROM, D.A.;
YENA, B.P.; NOVAKOV, G.Kh.

Continuous process of paraffin oxidation in the liquid-foam
state aimed at the production of synthetic fatty acids. Trudy
BONZ no.1:20-25 '63. (MIRA 16:6)

(Paraffins) (Oxidation) (Acids, Fatty)

STROM, D.A.; ISHCHUK, Yu.L.; STROM, L.D.; KOFTUN, T.I.

Improving the technology of the manufacture of synthetic
leather fat. Trudy BONMZ no.1:38-50 '63. (MIRA 16:6)

(Oils and fats)

ISHCHUK, Yu.L.; STEPANYANTS, S.A.; ISHCHUK, L.P.

Lubricating grease for conveying and dumping bridges (the
lubricant "OM" VTU TSMZ-5 No.01-60). Trudy BONMZ no.1:50-53
'63. (MIRA 16:6)

(Lubrication and lubricants)

STEPANYANTS, S. A., inzh.; MORDASHOV, V.N., inzh.; ISHCHUK, Yu.L.,
inzh.; STROM, D.A., inzh.; YENA, B.P., inzh.; NOVAKOV, G.Kh.,
inzh.

Continuous process for paraffin oxidation in a liquid foamed
state. Masl.-zhir. prom. 29 no.3:21-23 Mr '63.
(MIRA 16:4)

1. Berdyanskiy optychnyy neftemaslozavod.
(Paraffins) (Oxidation)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3

ISHCHUK, Yu.L.; SINITSYN, V.V.

Effect of the structure of fatty acids on the properties of
calcium lubricant grease. Khim. i tekhn. topl. i masel 9
no.9:49-52 S '64. (MIRA 17:10)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3"

2501-12 MTR 1000001 Fr-4 DU, KM

ACCESSION NR: AP5011491

UR/0065/65/000/005/0045/0049
665.59

AUTHORS: Sinitsyn, V. V.; Ishchuk, Yu. I.; Makonechna, M. B.; Kulosyuk, R. G.;
Lobanova, T. P.; Prokopenko, V. A.; Chmanskaya, O. I.

TITLE: Solid lubricants thickened with soaps of the mixtures of unsaturated
acids and with synthetic (saturated) fatty acids

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 5, 1965, 45-49

TOPIC TAGS: lubricant, solid lubricant, lubricant viscosity, soap, saturated
hydrocarbon, acid, unsaturated compound, synthetic hydrocarbon / USG 2 grease.
Motor vehicle grease, W engine oil, CV engine oil, UCHVITDRHGP 150 513 61-62
etc.

ABSTRACT: The effect of the degree of saturation of the fatty acid radical in
calcium soap on the structure and properties of hydrated calcium lubricants was
studied in an effort to improve the quality of synthetic lubricants. Because
natural fatty acids contain primarily the saturated carboxylic acids, it
was assumed that the addition of unsaturated acids would change drastically the
properties of their calcium soaps, resulting in end-products identical in quality

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L 53610-65

ACCESSION NR: AP5011691

to the natural ones. The solid lubricants described here were made from a mixture of 3V spindle oil and SV engine oil with viscosity of 39.2 centistokes at 50°. DCCaV(PURKhP 250 51) oleic acid, the SFA fractions No. 3 and ($C_{10}-C_{16}$), and their mixtures served as the saponification stock. The SFA composition was determined chromatographically. The samples of lubricants were prepared in an experimental laboratory and the quality evaluation method used in these experiments was proposed by V. I. Ishchenko and V. V. Finitsyn (this, p. 12). The properties of the lubricants are tabulated. The different stock proportions of the viscosity, shearing strength, and the oxidative stability of the products are given in the figure. It was noted that the whitening capacity of the lubricants increased with the increased degree of unsaturation of the linoleic-acid mixtures, and also that the mixtures with a greater degree of unsaturation were required in smaller amounts for the production of lubricants with the same properties. The lubricant prepared with 3% oleic acid had the best properties among the mixtures. At 7% they developed a bad smell and lost their color. Optimal mixtures for the preparation of solid lubricants with proper thermal and oxidation stability have other properties similar to those of natural oils contained.

Card 2/4

L 53616-65

ACCESSION NR: AP5011691

unsaturated acids: 50-75%; SFA: 25-40%. Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: none

SUBMITTED: 00

NO REF Sov: 006

ENCL: 01

SUB CODE: FP

OTHER: 000

Card 3/4

L 53616-65

ACCESSION NR: AP5011691

ENCLOSURE: (1)

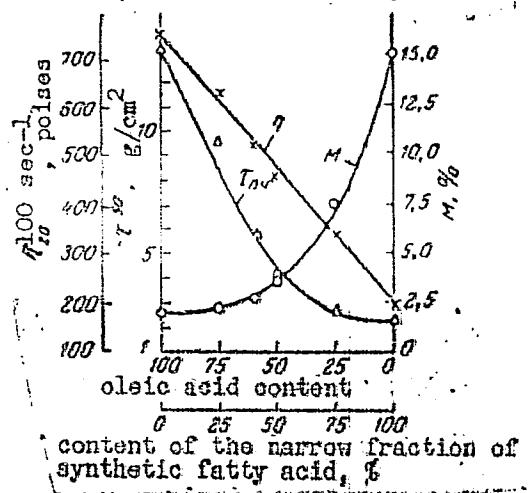


Fig. 1.

The effect of the composition of saponified stock (the mixture of synthetic fatty acids No. 3 and oleic acid) on the properties of solid lubricants

Card 4/4

L 42141-65 ENT(m)/EPF(c)/T Pr-4 DJ
ACCESSION NR: AP5008904

S/0069/65/027/002/C464/0263

AUTHORS: Sinitayn, V. V.; Ishchuk, Yu. L.; Martinin, B. N.

16

B

TITLE: Effect of the degree of saturation of the fatty acid radical on the
structure of hydrated Ca-soap in greases //

SOURCE: Kolloidnyy zhurnal, v. 27, no. 2, 1965, 264-268

TOPIC TAGS: saturated hydrocarbon, soap, grease

ABSTRACT: The effect of degree of saturation of the fatty acid radical on the structure of hydrated Ca-soap in greases was investigated. In order to study the effect of unsaturation of the fatty acid radical on the size and form of the soap fibers, two series of greases were prepared: the first from pure stearin and olein acids and their mixtures, and the second based on hydrogenated fat, cottonseed oil, and mixtures of the two. It was found that the degree of saturation of the fatty acid radical has a marked influence on the structure of Ca-soaps in greases. Intertwined fibers in the structure of hydrated Ca-greases can be obtained only for a given ratio of saturated to unsaturated acids in the saponified fat. When the relative proportion of fatty acids increases to more than 40% or decreases to less than 25%, the shape and size of the Ca-soap fibers in the greases change markedly. The structure of the greases thickened with Ca-soaps is practically unaffected by

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L 42141-65

ACCESSION NR: AP5008904

change in degree of saturation of the fatty acids or by the method of preparing the soaps, if the ratio between saturated and unsaturated acids in the saponified fat is kept constant. With increasing dispersion of the Ca-soap fibers, the ability to thicken increases. Colloidal stability is improved by reduction in size of the Ca-soaps. This also increases the viscosity and yield of the Ca-greases. These relations are in agreement with previously discovered data on Na- and Li-greases. Orig. art. has 3 figures.

ASSOCIATION: none

SUBMITTED: 22Nov63

NO REF Sov: 008

ENCL: 00

SUB CODE: OC, PP

OTHER: 002

Card 2/2

SINITSYN, V.V.; ISHCHUK, Yu.L.

Relation between the length of the fatty acid chain and the rheological characteristics of the pseudogels of Ca soaps.
Dokl. AN SSSR 162 no.3:625-628 My '65. (MIRA' 18:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut neftyanoy i neftekhimicheskoy promyshlennosti. Submitted December 10, 1964.

SINITSYN, V.V.; ISHCHUK, Yu.L.; PROKOPCHUK, V.A.

Structure of pseudogels produced by the thickening of hydro-carbon oils with Ca and Li soaps of saturated carboxylic acids.
Dokl. AN SSSR 163 no.2:426-429 J1 '65. (MIRA 18:7)

1. Submitted December 22, 1964.

I 45937-66 EWT(m)/T DJ/GD
ACC NR: AT6020588

(A)

SOURCE CODE: UR/0000/65/000/000/0067/0076

AUTHOR: Ishchuk, Yu. L.; Sinitsyn, V. V.; Prokopchuk, V. A.; Nakonechnaya, M. B.;
Man'kovskaya, N. K.; Ishchuk, L. P.; Pobortsev, E. P.

29

B7/

ORG: UkrNIIgiproneft

TITLE: Effect of water concentration and composition of fatty acids on the structure
and properties of synthetic greases

SOURCE: Neftepererabotka i neftekhimiya (Petroleum refining and petroleum chemistry).
Kiev, Naukova dumka, 1965, 67-76

TOPIC TAGS: fatty acid, grease

ABSTRACT: A series of greases were prepared from the residue of the synthesis of synthetic fatty acids (acid number 103 mg KOH/g), C₅-C₉ acids (280 mg KOH/g), and acid water (248 mg KOH/g); the dispersion medium was a mixture of Z spindle oil and S machine oil. This composition corresponds to that of commercial synthetic grease. It was found that a change in the water content of the greases in the range of 1 to 5% does not affect their volume mechanical properties or structure, indicating that it is desirable to raise the water content of such greases to 4-5%. The structure of hydrated calcium lubricants prepared from soaps of narrow fractions of heat-treated and distilled synthetic fatty acids and their mixtures differs from the structure of fatty and synthetic greases in that it consists of rod-shaped, petal-shaped, and flaky soap

Card 1/2

L 45937-66

ACC NR: AT6020588

O

crystallites. The greatest thickening capacity is displayed by C₁₆-C₂₀ acids with an average molecular weight of 286-300 and a purity of the fraction of no less than 90-95%. A wide boiling fraction of C₁₃-C₂₂ acids with a purity of no less than 98% is recommended for practical application and for producing high-quality synthetic grease. Orig. art. has: 5 figures and 4 tables.

SUB CODE: 11/ SUBM DATE: 01Dec65/ ORIG REF: 007

LS
Card 2/2

L 15936-66 EWT(m)/T/EWP(j) DJ/GD/RM
ACC NR: AT6020589

SOURCE CODE: UR/0000/65/000/000/0077/0081

AUTHOR: Kolosyuk, R. G.; Vdovenko, N. V.; Ishchuk, Yu. L.

29

B+1

ORG: UkrNIIgiproneft'

TITLE: Structural and mechanical properties of cleopseudogels based on octadecylammonium bentonite and palygorskite complexes

SOURCE: Neftepererabotka i neftekhimiya (Petroleum refining and petroleum chemistry). Kiev, Naukova dumka, 1965, 77-81

TOPIC TAGS: clay, grease, rheologic property

ABSTRACT: The Ukraine has rich deposits of Ca-bentonites and palygorskite; in this connection, the authors studied the possibility of using modified clays of Ukrainian deposits in the production of lubricating greases! The modification of the surface of the clays was carried out by using octadecylamine ($C_{18}H_{37}NH_2$). The lubricants were made by preparing a suspension of the organophilic clay and mineral oil, then homogenizing the mixture in a laboratory paint mill. A quantitative evaluation of the rheological properties of the bentonite cleopseudogels obtained showed that the most effective of the thickening agents studied were the BK-1" and BCh-1" organophilic bentonites and a bentonite-palygorskite mixture. The results lead to the hypothesis that the nature of organomineral complexes (thickening agents) substantially affects the

11

Card 1/2

L 46935-66

ACC NR: AT6020589

process of formation and rheological properties of such plastic dispersed systems as the bentonite lubricants. Orig. art. has: 2 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: 01Dec65/ ORIG REF: 007

LS

Card 2/2

ACC NR: AP7002391

SOURCE CODE: UR/0020/66/171/005/1145/1147

AUTHOR: Sinitsyn, V. V.; Prokopchuk, V. A.; Ishchuk, Yu. L.

ORG: none

TITLE: Effect of free alkalis and acids on the structure and properties of hydrated calcium lubricants

SOURCE: AN SSSR. Doklady, v. 171, no. 5, 1966, 1145-1147

TOPIC TAGS: soap, lubricant property, grease

ABSTRACT: A study of the effect of free bases and acids on the structure and properties of hydrated Ca-lubricants was carried out on a lubricant thickened with soaps of mixtures of stearic (H₁₂T) and oleic (H₁₆O) acids taken in the proportion of 1:3. Electron photomicrographs of the structure of the lubricants showed that on passing from weakly acidic and neutral lubricants to alkaline ones, a regular increase in the number of flat, band-shaped crystallites is observed with increasing alkalinity. The influence of basicity (acidity) on the structure of hydrated Ca-lubricants corresponds to changes in their volume-mechanical properties. The greatest thickening effect is obtained with a concentration of 0.12% NaOH in the lubricant, which then has the maximum strength and viscosity. Its dispersed phase consists of a combination of band-shaped and twisted fibers of soap. It is shown that the basicity of hydrated Ca-lubricants should not exceed 0.15% NaOH. On the other hand, the presence of excess

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UDC: 621.892.5

ACC NR: AP7002391

organic acids (up to 0.5% NaOH) has no adverse effect on the properties of the lubricants. To obtain the maximum thickening effect, greases containing from 0.04 to 0.12% NaOH should be prepared. The paper was presented by Academician Rebinder, P. A., 23 Mar 66. Orig. art. has: 2 figures and 1 table.

SUB CODE: // SUBM DATE: none/ ORIG REF: 007

4,

Card 2/2

L 20366-66 EWT(m)/T DJ

ACC NR: AP6006447 (A)

SOURCE CODE: UR/0065/66/000/002/0027/0030

AUTHORS: Ishchuk, Yu. L.; Sinitsyn, V. V.; Goshko, N. S.; Nakonechnaya, M. B.;
Prokopchuk, V. A.; Vakurov, P. S.

ORG: none

B

TITLE: Complex calcium greases derived from synthetic fatty acids

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 2, 1966, 27-30

grease, viscosity, organic synthetic process,
TOPIC TAGS: lubricant, lubricant property, organocalcium compound / GOST 1707-51
No. 50 lubricant

ABSTRACT: The properties and performance of a number of calcium greases derived by adding 98% acetic acid and various synthetic fatty acids (containing from 7 to 25 carbon atoms in the molecule) to GOST 1707-51 industrial oil No. 50 were studied. The acid number, saponification number, iodine number, average molecular weight, melting point, and composition of the fatty acid fractions used are tabulated. Electronmicrophotographs of the synthesized greases are presented. The viscosity characteristics of the calcium greases were determined (see Fig. 1). It is concluded that the complex calcium greases derived from C₁₀ - C₂₀ and C₁₇ - C₂₀ fatty acids possess a sufficiently high mechanical stability, low viscosity at 0°C,

Card 1/2

UDC: 621.892.8

L 20366-66

ACC NR: AP6006447

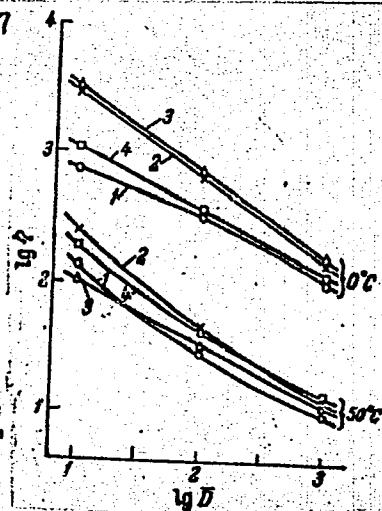


Fig. 1. Viscosity characteristics of synthetic complex calcium greases derived from synthetic fatty acid fraction.
1 - C₁₀ - C₁₆; 2 - C₁₇ - C₂₀;
3 - larger than C₂₁; 4 - C₁₀ - C₂₀. Η̄ - viscosity in poise;
D̄ in revolutions per sec.
(Abstracter's note: the meaning of D̄ is not made clear. Its units are sec⁻¹)

and high water stability to be useful in various applications up to a temperature of 120--175°C and over short periods of time at a temperature of 200°C. Orig. art. has: 2 tables and 3 graphs.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001
Card 2/2 vmb

L 21419-66 EWP(s)/ENT(m)/T/ETC(m)-6 MM/JG/DJ/WH
ACC NR: AP6009612 (A)

SOURCE CODE: UR/0369/66/002/001/0089/0091

AUTHOR: Zozulya, V. D.; Ishchuk, Yu. L.

ORG: Institute of Materials Technology, AN UkrSSR (Institut problem materialovedeniya
AN UkrSSR); UkrNIIGipromet, Kiev

TITLE: Selection of greases for sliding cermet bearings ||

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 1, 1966, 89-91

TOPIC TAGS: cermet, bearing, lubrication, lubricant grease

ABSTRACT: Under conditions of abrasive wear and humidity, oils have a number of disadvantages in the lubrication of cermet bearings. The authors found that new, compounded synthetic greases are preferable for the lubrication of sliding cermet bearings. High temperature, water resistant, compounded synthetic greases are recommended for soaking and lubricating iron-graphite bearings. Orig. art. has: 2 figures. [VS]

SUB CODE: 11/ SUBM DATE: 15Oct64/ ORIG REF: 004/ ATD PRESS: 4221

Card 1/1 ULR

L 07160-67 EWT(m) JAJ/DJ
ACC NR: AP6027599

(A)

SOURCE CODE: UR/0318/66/000/007/0022/0025

AUTHOR: Sinitsyn, V. V.; Ishchuk, Yu. L.; Prokopchuk, V. A.; Goshko, N. S.; Nakonechna, M. B.

38

36

13

ORG: none

TITLE: Effect of adding glycerides of higher unsaturated acids on the properties of multipurpose lubricants //

SOURCE: Neftopererabotka i neftekhimiya, no. 7, 1966, 22-25

TOPIC TAGS: high temperature lubricant, organic lubricant, solid lubricant, lubricant component, soap

ABSTRACT: In view of the extensive potential applications of multipurpose calcium-containing lubricants, studies were carried out in an attempt to eliminate some of their disadvantages, such as thickening during storage, hygroscopicity, and change in properties upon absorption of atmospheric moisture. It was found that the introduction of 1-3% glycerides of higher unsaturated carboxylic acids (e. g., eleostearic acid) into the composition of the lubricants (prepared by thickening mineral oils with calcium soaps of stearic and acetic acids) improved the viscosity-temperature and viscosity-speed characteristics. The products thus obtained considerably surpass ordinary solid lubricants in properties and can be used as universal multipurpose lubricants. Tests in roller bearings at 120° confirmed that the new lubricants had much

Card 1/2

UDC: 565.633-4:621.43.019.862.003.1

L 07160-67

ACC NR: AP6027599

better performance characteristics than the high-temperature lubricants 1-13, NK-50,
etc. The tests were performed by P. S. Vakurov, to whom the authors are deeply grate-
ful. Orig. art. has: 1 figure and 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 004

2

Card 2/2 MTC

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3

ISHCHUKOV, I.G.

Symbols for 1 : 500 maps. Geod. i kart. no.1:38-40 Ja '64.
(MIRA 17:9)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3"

POLYUKHOV, N.A.; ISHCHUKOVA, M.P.

Treatment and prevention of hypertonic disease. Trudy Kish.gos.
med.inst. 13247-49 '60. (MIRA 16:2)

1. Kafedra gospital'noy terapii Kishinevskogo gosudarstvennogo
meditsinskogo instituta.

(HYPERTENSION)

RIBESKOV, N.V.; ISHCHUKOVA, M.P.; LAZAREV, I.M. (Kishinev)

Severe course of Reiter's syndrome. Klin.med. 40 no.6:143-
146 Je '62. (MIRA 15:9)

1. Iz gospital'noy terapevticheskoy kliniki (zav. - prof. M.A.
Polyukhov) Kishinevskogo meditsinskogo instituta (dir. - kand.
med.nauk N.A. Testemitsu) i Respublikanskoy klinicheskoy
bol'niyey (glavnnyy vrach T.V. Nosiknyaga).
(REITTER'S DISEASE)

ZINGERMAN, Ya.P.; ISHCHUK, V.A.; MOROZOVSKIY, V.A.

Adsorption of atoms of the alkaline earth group on polycrystalline tungsten. Fiz.tver.tela 3 no.4:1044-1053 Ap '61. (MIRA 14:4)

1. Institut fiziki AN USSR, Kiyev.
(Alkaline earth compounds) (Adsorption) (Tungsten)

Ishchuk V.N.

AUTHORS: Loginov, V.I., Polozhenko, V.G., Grinblat, A.S. and Ishchuk,
V.N., Mining Engineers SOV-127-56-9-8/20

TITLE: Speedy Drifting of Mine Working in the Achisay Mine (Skorostnaya
prokhodka shtreka na Achisayskom rudniku)

PERIODICAL: Gornyy zhurnal, 1958, Nr 9, pp 48-51 (USSR)

ABSTRACT: A geological prospecting party located a rich ore body situated
at the Achisay Mine. This deposit was situated 2.5 km from
the mine. As the reserves of the main mine were running out,
it was decided to exploit this deposit. In 6½ months, 2123 m
of horizontal drifting was accomplished. The authors give a
detailed description of organizing the work.
There are 3 sets of diagrams and 1 table.

ASSOCIATION: Achisayskiy rudnik (The Achisay Mine)
1. Ores--Production 2. Mining industry--USSR 3. Mines--Operation

Card 1/1

ISHCHUK, Yu.L.; KABARIVSKAYA, M.B. [Kabarivs'ka, M.B.]; GOSHKO, N.S.
[Hoshko, N.S.]; ISHCHUK, L.P.; PROKOPCHUK, V.A. [Prokopchuk, V.O.]

Synthetic fat liquor for leather based on the wide fraction
of technical fatty acids. Leh.prom. no.1:49-51 Ja-Mr '64.

(MIRA 19&1)

LERNER, P.M.; FARKHADT, R.R.; ISCHUTINA, K.F.; KARASLVA, A.P.

Some problems of the epidemiological basis for control measures
against hymenolepiasis and lambliasis; preliminary report. Med.
paraz. i paraz. bol. 34 no.3:321-324 My-Je '65. (MIRA 18:7)

1. Kafedra infektsionnykh boleznei Samarkandskogo meditsinskogo
instituta, Respublikanskaya kostnaya tuberkuleznaya bol'ница imeni
V.I. Lenina i Samarkandskaya gorodskaya sanitarno-epidemiolog-
cheskaya stantsiya.

ISHEMGUZHIN, S.

A deputy, an outstanding petroleum worker. Neftianik 8
no.6:10 Je '63. (MIRA 16:11)

1. Starshiy inzh. tekhnicheskogo otdela Neftepromyslovogo
upravleniya Al'keyevneft' Tatarskoy ASSR.

ISHEMGUZHIN, S.B.

The struggle for technological progress in the petroleum industry administrative unit "Al'keevneft". Opyt. rab. po tekhnicheskoy informatsii i prop. no.3:12-13 '63. (MIRA 16:12)

1. Starshiy inzh. byuro tekhnicheskoy informatsii Neftepromyslovogo upravleniya "Alkeyavneft".

ISHENETSKIY, A. A; SOLNTSEVA, L. I.

Thermophil pectin bacteria. Mikrobiologija, Moskva 19 no.
5:418-425 Sept-Oct 1950. (CLML 20:1)

1. Institute of Microbiology, Academy of Sciences USSR, Moscow.

ISHENKO, I.N. redaktor

[Proceedings of the Eighth Surgical Congress of the Ukrainian
S.S.R.] Trudy VIII s"ezda khirurgov Ukrainskoy SSR. Pod. red.
I.N. Ishenko i dr. Kiev, Gos. med. izd-vo USSR, 1955. 549 p.
(MLBA 10:4)

(SURGERY)

ISHENKO, V.

"Let us not uncouple a single car because of a hotbox." Tr. from the Russian.
(p. 287) / ZELEZNICE (Zeleznici vydavaterstvi) Praha, Vol 3, No 11, 1953.

SO: East European Accessions List, Vol 3, No 8, Aug 1954.

ISERLE, Jan, Dr.

Manifestations of the fundus oculi in death. Cesk. ofth. 12 no.6:
436-440 Dec 56.

(EYE,
fundus manifest. in death (Cx))

(DEATH,
manifest. of fundus oculi in death (Cx))

Ishchenko, Ye. F.

ARSEN'YEV, N.N., inzh.; ISHCHENKO, Ye.F., inzh.

Regulator of the position of electrodes for a high-intensity
arc. Svetotekhnika 4 no.2:21-24 P '58. (MIRA 11:1)

1. Vsesoyuznyy svetotekhnicheskiy institut.
(Electric lamps, Arc)

Ishchenko-Linnik, K.M.

USSR / Microbiology. Medical and Veterinary Microbiology. Pg

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21983

Author : Gaidamaka, M.G., Ishchenko-Linnik, K.M., Mikulinskaya, R.M., Chebotareva, Ye. V.

Inst :

Title : An Experiment in Applying Vi-Agglutination Reaction for Detection of Typhoid Bacilli Carriers.

Orig Pub: Sb. tr. Kharkovsk. n.-i. in-ta vaktsin i syvorotok, 1955, 22, 155-157

Abstract: Two cases of applying Vi-agglutination reaction for detection of enteric typhoid bacilli carriers are described. In the first case 47 patients were tested by the method of dripping Vi-agglutination on glass; the sera of 8 of these yielded a positive reaction. After numerous examinations of the excreta, the Ebert bacillus was isolated in all 8. The method of drop agglutination: the Batnagar strain, almost totally devoid of O and N antigens,

Card : 1/3

-20-

USSR / Microbiology. Medical and Veterinary Microbiology. F-5

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21983

Author : Gaidamaka, M.G., Ishchenko-Linnik, K.M., Mikulinskaya, R.M., Chebotareva, Yu. V.

was cultured on hen embryo, after which it acquired the property of yielding a positive reaction with a standard serum at a dilution of 1:25 - 1:50 in 5-10 minutes. An agar culture of this strain was suspended in a drop of serum being tested, which was diluted 1:8 with physiological saline, and it was placed for 10-15 minutes into a moist chamber. In the second case, the sera of 53 exposed persons were examined by the volumetric method. In 2 of these a positive reaction was obtained at a dilution of 1:8, in 5 in a 1:40 dilution. The type of agglutination (in the agglutinoscope) was finely grained. As a Vi-strain the same Batnagar strain was used. In the subsequent excreta examination, the Ebert bacillus was found in 2 out of 7 who yielded a positive Vi-agglutination. The authors believe that the reaction of Vi-

Card : 2/3

-21-

USSR / Microbiology. Medical and Veterinary Microbiology. F-5

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21983

agglutination, especially dripping on a glass, presents a sufficiently reliable, least laborious and technically uncomplicated method of detecting typhoid bacillus carriers.

Card : 3/3

-22-

USSR/Microbiology - Sanitation Microbiology.

F-4

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67226

Author : Volovich, N.I., Mikulinskaya, R.M., Zlatopol'skaya, R.D.,
Ishchenko - Linnik, K.M.

Inst : Khar'k. in-t

Title : Data on the Etiology and Epidemiology of Food Toxin
Infections.

Orig Pub : Tr. Khar'kovsk n.-i. in-ta vaktsin i syvorotok, 1957, 24,
235-240

Abstract : No abstract.

Card 1/1

LOGINOV, V.I., gornyy inzh.; POLOZHENKO, V.G., gornyy inzh.; GRINBLAT, A.S.,
gornyy inzh.; ISHCHUK, M.M., gornyy inzh.

Rapid drifting at the Achisay mine. Gor. zhur. no.9:48-51
(MIRA 11:10)
S '58.

1. Achisayskiy rudnik.
(Achisay—Mining engineering)

FUJI FILM 2004

USSR / Electricity

G

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9614

Author : Gul'kov, F.B., Ysherenko, A.I.

Inst : Not given

Title : Concerning the Problem of the Determination of the Dielectric Constant of Solid Dielectrics.

Orig Pub : Sb. stately nauch-stul. o-va, Mosk. Energ. un-ta, 1956, vyp 9,
152-162.

Abstract : The authors consider the problem of the effect of the edge capacitance C of a disk capacitor on the accuracy of measurement of the dielectric constant. It is shown that the formulas for C, given in the work by O.D. Chwolson (Course of Physics, Volume 4, Berlin, 1923), K.A. Putilov (Course of Physics, Volume 2, Gostekhizdat, 1945) and G.I. Skanavi (Dielectric Polarization and Losses in Glass and Ceramic Materials with High Dielectric Constant, GEI, 1952, Page 24).

Card : 1/2

ISHERSKAYA, Ye.V.

Meteorological Abst.
Vol. 4 No. 5
May. 1953
Bibliography on High
Level Winds

4E-47

SS1.357(37)

Isherskaya, E. V.; Iz rezul'tatov pilotnykh nablyudenii vo Vladivostoke zimoi 1929-30 goda. [On the results of pilot balloon ascents at Vladivostok in the period 1929-30.] Vladivostok: Dal'negoostochnyi Geofizicheskiy Institut, Izdatel'stvo, 1:239-247, 1931. 6 tables, 3 reis. English abstract p. 247.—Data obtained from 25 ascents during winter 1929-30 presented and discussed. Pressure was high over East Asia and low over the sea. Ten ascents exceeded 5 km. Winds tended to back with height, being mainly WSW to WNW above 3 km. Subject Headings: 1. Upper air wind data 2. Vladivostok, U.S.S.R.—G.J.E.

ISHERSKAYA, YE. V.

"The Problem of the Meteorological Conditions of Drought and Dry Winds in the Saratov Area of the Volga, Uchenyye zapiski Saratovskogo gos. universiteta im. N. G. Chernyshevskogo (Scientific Memoirs of the Saratov State University imeni N. G. Chernyshevskiy) 1947.

SO: U-3039, 11 Mar 1953

PA 34T61

ISHERSKAYA, YE. V.

IC

USER/Meteorological Research
Hydrology

Sep/Oct 1947

"Movement of Air over the Saratov Part of the Volga Region during the 1936 Drought," Ye. V. Isherskaya, Te. M. Aleshechkins, 24 pp

"IZV Vsesoyuz Geog Obschch" Vol LXXXI, No 5

This article discusses the transfer of air which took place in the troposphere over the Saratov region of the Volga River during the drought of 1936. As a result of this study authors attempt to show that this drought could be explained by meteorological reasons. They also explain that this drought could have been due to advection from the southeast. They hasten to

34T61

IC

USER/Meteorological Research (Contd) Sep/Oct 1947

This article discusses the transfer of air which took place in the troposphere over the Saratov region of the Volga River during the drought of 1936. As a result of this study authors attempt to show that this drought could be explained by meteorological reasons. They also explain that this drought could have been due to advection from the southeast. They hasten to

34T61

ISHERSKAYA, YE. V.

Isherskaya, Ye. V. "On the problem of the meteorological conditions of droughts and drying winds in the Saratov Volga region", Uchen. zapiski (Sarat. gos. in-t im. Chernyshevskoho), vol. XXII, Geographic issue, 1949, p. 130 -50, - Bibliog: 8 items.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

1945-1950, V.

b

✓1.1-316

551.582(47)

Isherskaiia, E. V. Nekotorye nablyudeniiia nad mestnym klimatom doliny reki Volgi. [Observations on the local climate of the Volga River Valley.] (In: Akademiiia Nauk SSSR, Institut Geografii [and] Institut Lesi, Mikroklimaticheskie i klimaticheskie issledovaniia: Prikaspiskoi Nizmennosti, Moscow, 1953, p. 94-99. 4 tables, 3 refs.) DIC—A series of parallel meteorological observations (air temperature, humidity, wind speed and direction) on two left bank terraces of the Volga near Saratov compared with a section of the left bank of the Volga (a typical steppe) were carried out in the summer 1951 by a group of students of Saratov University under the supervision of the author. Comparative tables of average values of wind speed, temperature and humidity show no considerable differences. Subject Headings: 1. Local climates 2. Climate of Volga River Valley 3. Weather comparisons 4. Volga River Valley, U.S.S.R.—A.M.P.

4C
✓1

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3

ISHERSKAYA, Ye.V.; USHAKOVA, V.V.

Breezes of the lower Volga. Izv. Russ. Geog. ob-va 89 no.2:154-157
Mr-Ap '57.
(Volga Valley--Winds)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618830002-3"

A. S. GOZDETSKY, A. YE. MATISSEN and YE. V. ISHERSKAYA (Saratov Geographers),
B. A. CHAZOV (Saratov and Perm' University) and Prof. G. G. CRIGOR (Tomsk Univ.)

"An economic division of the USSR according to physical-geographical
considerations;

report presented at an Inter-University Conference on Dividing the USSR into
Economic Regions, 1-5 February 1958, Moscow. (Izv. Ak nauk SSSR, 4, 146-49;
1958 author - Gvozdetskiy, N. A.)

ISHERSKAYA, Ye.V.

Special features in the microclimatology of valleys in the Syrt
trans-Volga region; based on the Bol'shoy Irgiz Valley. Uch.zap.
Sar. un. 72:49-52 '59. (MIRA 13:8)
(Irgiz Valley--Microclimatology)

ISHERSKAYA, Ye.V.

Utilizing a meteorograph in microclimatic surveying. Uch.sap.
Sar. un. 72:79-82 '69. (MIRA 13:8)
(Meteorological instruments) (Microclimatology)

AKCHURINA, R.M.; ISHERSKAYA, Ye.V., red.; KUZNIK, I.A., red.

[The climate and waters of the land portion of the southwestern European part of U.S.S.R.; a bibliographical index] Klimat i vody sushi iugo-vostoka evropeiskoi chasti SSSR; bibliograficheskii ukazatel'. Saratov, Izd-vo Saratovskogo univ., 1961. 267 p. (Bibliografiia Saratovskoi oblasti, no.5) (MIRA 17:11)

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S/0169/64/000/003/B072/B072

SOURCE: Referativny^z zhurnal. Geofizika, Abs. 3B465

AUTHOR: Isherskaya, Ye. V.; Konovalova, L. A.

TITLE: Microclimate of a river valley of the Volga slope of the Volga Highlands

CITED SOURCE: Sb. Materialy^z 1-go Nauchno-tekhn. soveshchaniya po izuch.
Kuyby^zhevsk. vodokhranilishcha. Vy^zp. 2. Kuyby^zhev, 1963, 71-80

TOPIC TAGS: climate, microclimate, microclimate survey, atmospheric surface
layer, atmospheric temperature gradient, atmospheric temperature, atmospheric
humidity

TRANSLATION: A microclimatic survey was made using an automobile which carried
an automatic meteorograph which recorded air temperature and humidity in the
surface layer. The study discusses the microclimatic indices of the following
relief features: a) the lower surface of the Volga Highlands on drainage divides;
b) plateau slopes of different degree of dissection and exposure descending to
the valleys; c) the Khazarskaya terrace of the valleys; d) the Khvalynskaya

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terrace; and e) the recent floodplain terrace. At nighttime, in the predawn hours, the air temperature distribution in the surface layer conforms to the topographic profile. The valleys are 2-3° colder than the plateau. Within a valley there is smoothing of the microclimatic differences. The vertical temperature gradient in the layer of the first 50 meters from the surface of the soil is close to zero. On valley slopes temperature increases with height; the vertical temperature gradient is $-5 - -6^{\circ}/100$ m. On the plateau temperature variations do not exceed 1° . The distribution of relative humidity conforms to the topographic profile, but has an opposite sign in comparison to the temperature distribution. In the valleys the relative humidity is 20% (sometimes 50%) higher than on the plateau. In the evening the cooling of valleys and the formation of inversions in the valleys begins immediately after sunset; in the first hours of the night the terraces above the floodplains are warmer than the floodplains. The frosts on the terraces above the floodplains are of shorter duration than on the floodplains. In the evening hours, even before the onset of a temperature change, there is a sharp increase of humidity in topographic depressions. This can be

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attributed to the fact that moisture exchange is difficult when an inversion is forming over the floodplain. During the daytime hours the distribution of temperature and humidity is uniform and has little dependence on the form of relief. There is no temperature increase in topographic depressions, which can be attributed to a considerable vertical heat exchange. In the absence of a daytime increase of temperatures and with considerable nighttime cooling in the valleys the sums of active temperatures in the growing season are greater than on open plateaus. M. Garadzha.

DATE ACQ: 17Apr64

SUB CODE: AS

ENCL: 00

Card 3/3

SADYKOV, A.S.; ISHIBAYEV, A.I.

Alkaloids of the C₁₅ series. Part 3: Decarboxylation and preparation of some esters of aphyllic acid. Zhur. ob. khim. 30 no.5:1733-1736 My '60. (MIRA 13:5)

1. Sredneasiatskiy gosudarstvennyy universitet.
(Alkaloids)

ISHIGENOV, I. A.

ISHIGENOV, I.A. - "Cultivating solonetz soils under the conditions prevailing in northern Kazakhstan". Moscow, 1955. Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev. (Dissertation for the degree of Candidate of Agricultural Sciences).

SO: Knizhnaya Letopis' No. 46, 12 November 1955. Moscow

CHIZHEVSKIY, M.G., professor, kandidat sel'skokhozyastvennykh nauk;
POLOVITSKIY, I.Ya., kandidat sel'skokhozyastvennykh nauk;
ISHIGENOV, I.A., kandidat sel'skokhozyastvennykh nauk.

Agricultural use of solonetz soils in North Kazakhstan Province.
Zemledelie 4 no.6:13-20 Je '56. (MLRA 9:8)
(North Kazakhstan Province--Agriculture)
(Solonetz soils)

ISHGENOV I.A.

USSR/Soil Science. Cultivation, Melioration. Erosion J

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58348, By T. I,
Karelin

Author : Chizhevskiy M., Polovitskiy I., Ishgenov I.

Inst : Not given

Title : Reclaiming of Saline Soils in Northern Kazakhstan

Orig Pub : S. kh. Kazakhxtana, 1956, No 6, 39-43

Abstract : Experimental comparison of the different methods
of plowing of saline soils, and the effect of
the plowing on the properties of the soil and
farm crops was carried out in Mamlyutinskiy Ra-
jon, Northern Kazakhstan Oblast in 1953-1955.
The experiments were conducted on complex soils:
Strongly saline chernozem, suberous, medium la-
terite, salt bottom. More than 80% of the

Card 1/2

25

ISHIMBAYEV, T.V.

Frames of ТМЗ diesel locomotives of the first series need to
be modernized. Elek. i tepl. tiaga. 4 no. 6:44 Je '60.
(MIRA 13:8)

1. Starshiy tekhnolog TSentral'nogo konstruktorskogo byuro
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zavodami.

(Diesel locomotives)

ISHIMBAYEV, T.V.

ISHIMBAYEV, T.V.

Method of checking the turning angle of the crankpins.
Elek. i tepl.i tsiaga no.7:22 J1 '60. (MIRA 13:8)

1. Starshiy tekhnolog TSentral'nogo konstruktorskogo byuro
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zavodami pri Tashkentskom teplovozeremontnom zavode..
(Diesel engines--Maintenance and repair)

ISHIMBAEV, T.V., starshiy inzhener-tehnolog (Tashkent)

Semiautomatic system for welding the supports of the blocks of
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(Diesel engines--Welding)

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KARNAUKHOV, G.T., Red.

[Repair of diesel locomotive revolution regulators] Re-
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Moskva, Transport, 1965. 44 p. (MIRA 18:7)

ISHIMBAYEV, V.I., kandidat tekhnicheskikh nauk.

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(Railroads--Switches)

BUZANOV, S.P., prof., doktor tekhn. nauk; BELOV, V.N., kand. tekhn. nauk
(Tashkent); ISHIMBAEV, V.I., kand. tekhn. nauk (Tashkent); TULYAGANOV, U.T., kand. tekhn. nauk (Tashkent)

Valuable book on station and junction layouts. Zhel. dor. transp.
46 no.10:92-93 0 '64. (MIRA 17:11)

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CIA-RDP86-00513R000618830002-3

ISHIMOV, VL.

A start has been made. Sov.foto. 19 no.8:38-46 Ag '59.
(MIRA 13:1)
(Krasnogorsk--Cameras)

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Adrenaline-secretory reflexes from the carotid sinus in dogs with bacterial allergy. A. D. Afan, L. M. Ishimova and T. B. Tolpegin (State Med. Inst., Kazan). *Zh. Fiziol.*, 12, No. 4, 21-7 (1960). - Stimulation of chemoreceptors of the carotid sinus of unsensitized dogs by acetylcholine (or lobeline) causes adrenaline-secretory reflex in the suprarenals. Action of dysentery or typhoid endotoxin vaccines either causes a weak reflex or none at all. However, with sensitized dogs (by dysentery or typhus vaccine) the effect was extremely strong; section of the sinus nerve and the stomach nerve or thrombosis of the carotid vessels destroyed the possibility of initiation of the reflex.
G. M. Kosolapoff

Dept Pathol. Physiol
K

ISHIMOVA L. M.

Deistvie kurare na allergicheskie reaktsii khemoreseptorov
karotidnogo sinusa. [Effect of curare on allergic reactions of
the chemoreceptors of the carotid sinus.] Arkh. pat., Moskva
12:4 July-Aug 50 p. 28-30.

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ISHIMOVA, L. M.

"The Effect of an Antigen on Interoceptors." Dr Med Sci, Kuybyshev Medical Inst, Kuybyshev, 1954. (RZhBiol, No 7, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions. (16).

ISHIMOVA, L.M.

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Zhur. vys. nerv. deiat. 4 no.2:213-220 Mr-Ap '54. (MLRA 7:10)

1. Kafedra patologicheskoy fiziologii Kuybyshevskogo gosudarstvenno-go meditsinskogo instituta.

(ANTIGENS AND ANTIBODIES,

influenza antigens, prod. of conditioned reflex
hyperventilation in dogs)

(RESPIRATION,

hyperventilation prod. conditioned reaction to influenza
antigens in dogs)

(REFLEX, CONDITIONED,

prod. of hyperventilation in dog by conditioned
reaction to influenza antigens)

(INFLUENZA, IMMUNOLOGY,

antigens, prod. of conditioned reflex hyperventilation
in dogs)